

10/720,905

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NEWS	8	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	9	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	10	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	11	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	12	MAR 22	PATDPASPC - New patent database available
NEWS	13	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	14	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	15	APR 04	EMBASE - Database reloaded and enhanced
NEWS	16	APR 18	New CAS Information Use Policies available online
NEWS	17	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAPLUS and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	18	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAPLUS
NEWS EXPRESS			JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
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NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

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SINCE FILE

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ENTRY

SESSION

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FILE COVERS 1907 - 10 May 2005 VOL 142 ISS 20

FILE LAST UPDATED: 9 May 2005 (20050509/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s catalyst

687328 CATALYST

691224 CATALYSTS

L1 881222 CATALYST

(CATALYST OR CATALYSTS)

=> s l1 and (solicon or silica)

5 SOLICON

466937 SILICA

3562 SILICAS

467334 SILICA

(SILICA OR SILICAS)

L2 52967 L1 AND (SOLICON OR SILICA)

=> S L2 and titanu?

24 TITANU?

L3 0 L2 AND TITANU?

=> S L2 and titani?

485071 TITANI?

L4 9299 L2 AND TITANI?

=> S L2 and titanium

436990 TITANIUM

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78 TITANIUMS  
437000 TITANIUM  
(TITANIUM OR TITANIUMS)

L5 5497 L2 AND TITANIUM

=> s 15 and (process or prepar? or make or made or method or syntheses?)

2081243 PROCESS  
1392304 PROCESSES  
3097999 PROCESS  
(PROCESS OR PROCESSES)  
1544794 PREPAR?  
115830 PREP  
2032 PREPS  
117662 PREP  
(PREP OR PREPS)  
1928624 PREPD  
21 PREPDS  
1928639 PREPD  
(PREPD OR PREPDS)  
107105 PREPG  
12 PREPGS  
107116 PREPG  
(PREPG OR PREPGS)  
2571390 PREPN  
199344 PREPNS  
2722386 PREPN  
(PREPN OR PREPNS)  
4512825 PREPAR?  
(PREPAR? OR PREP OR PREPD OR PREPG OR PREPN)  
208271 MAKE  
161365 MAKES  
359123 MAKE  
(MAKE OR MAKES)  
1145758 MADE  
23 MADES  
1145778 MADE  
(MADE OR MADES)  
2829539 METHOD  
1178468 METHODS  
3676266 METHOD  
(METHOD OR METHODS)  
1445042 SYNTHES?

L6 4472 L5 AND (PROCESS OR PREPAR? OR MAKE OR MADE OR METHOD OR SYNTHES?  
)

=> s 16 and (support or carrier)

414098 SUPPORT  
115967 SUPPORTS  
492088 SUPPORT  
(SUPPORT OR SUPPORTS)  
250532 CARRIER  
138566 CARRIERS  
326472 CARRIER  
(CARRIER OR CARRIERS)

L7 1738 L6 AND (SUPPORT OR CARRIER)

=> s 17 and titanium halide

436990 TITANIUM  
78 TITANIUMS

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```
437000 TITANIUM
      (TITANIUM OR TITANIUMS)
147606 HALIDE
122897 HALIDES
214197 HALIDE
      (HALIDE OR HALIDES)
1263 TITANIUM HALIDE
      (TITANIUM(W) HALIDE)
L8      19 L7 AND TITANIUM HALIDE

=> s l8 and epoxid?
      86221 EPOXID?
L9      5 L8 AND EPOXID?

=> s l8 and oxid?
      2734056 OXID?
L10     11 L8 AND OXID?

=> dup rem l8 l9 l10
PROCESSING COMPLETED FOR L8
PROCESSING COMPLETED FOR L9
PROCESSING COMPLETED FOR L10
L11     19 DUP REM L8 L9 L10 (16 DUPLICATES REMOVED)

=> dup rem l8 l11
'19' ANSWERS REMOVED DUE TO ANSWER OVERLAP
PROCESSING COMPLETED FOR L8
PROCESSING COMPLETED FOR L11
L12     19 DUP REM L8 L11 (0 DUPLICATES REMOVED)

=> d l12 ibib hitstr abs 1-19

L12 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:29246 CAPLUS
DOCUMENT NUMBER: 142:114651
TITLE: Preparation method of epoxidation
catalysts containing titanium
halides and hydrolyzed silica gel
carriers
INVENTOR(S): Buijink, Jan Karel Frederik; Crocker, Mark; Van der
Grift, Carl Johan Gerrit; Van Vlaanderen, Johannes
Jacobus Maria
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B. V.,
Neth.
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
WO 2005002723	A1	20050113	WO 2004-EP51306	20040630
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,			

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TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
SN, TD, TG

US 2005014960 A1 20050120 US 2004-880809 20040630  
PRIORITY APPLN. INFO.: EP 2003-254162 A 20030630

AB **Process** for the **preparation** of an epoxidn. **catalyst**  
which **process** comprises: (a) drying a **silica gel**  
**carrier** at a temperature 400-1000°; (b) hydrolyzing the dried  
**silica gel carrier**; (c) optionally drying the hydrolyzed  
**carrier**; and (d) contacting the **carrier** obtained with a  
gas stream containing **titanium halide** to obtain an  
impregnated **carrier**, in which **process** the hydrolysis  
of step (b) is carried out at a temperature of at most 200°.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:15590 CAPLUS

DOCUMENT NUMBER: 142:98888

TITLE: Plasma deposition of TiO<sub>2</sub> photocatalytic coatings from

**titanium halide** precursor on glass,

ceramic or plastic substrates

INVENTOR(S): Durandeau, Anne; Duran, Maxime; Victor, Corinne

PATENT ASSIGNEE(S): Saint-Gobain Glass France, Fr.

SOURCE: Fr. Demande, 25 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2857030	A1	20050107	FR 2003-7948	20030701
WO 2005012593	A1	20050210	WO 2004-FR1673	20040630
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: FR 2003-7948 A 20030701

AB Photocatalytic coatings on glass, glass-ceramic, ceramic or plastic  
substrates are based on TiO<sub>2</sub> are deposited by plasma CVD from a precursor  
mixture comprising at least one organometallic precursor and/or a  
**titanium halide** in presence of oxidizing and/or reducing  
agents.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

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ACCESSION NUMBER: 2004:486423 CAPLUS  
DOCUMENT NUMBER: 141:43514  
TITLE: **Process for preparing an epoxidation catalyst and process for preparing epoxides**  
INVENTOR(S): Buijink, Jan Karel Frederik; Janssen, Frank Joan  
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B.V., Neth.  
SOURCE: PCT Int. Appl., 20 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050241	A1	20040617	WO 2003-EP50877	20031124
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2004116723	A1	20040617	US 2003-720905	20031124
US 2004158085	A1	20040812	US 2003-720921	20031124
PRIORITY APPLN. INFO.:			EP 2002-258294	A 20021202
			EP 2002-258296	A 20021202

AB The present invention relates to a **process** for the **prepn** of an epoxidn. **catalyst** comprising (i) drying a **silica gel carrier** with weight average particle size 0.1-2 mm at 200-300° and (ii) contacting the **carrier** obtained with a gas stream containing **titanium halide** to obtain an impregnated **carrier** and the use of such **catalyst** in the **preparation** of alkylene oxide. Thus, a **silica gel carrier** with surface area 300 m<sup>2</sup>/g and weight average particle size 1 mm dried at 225° for 2 h was contacted with a gas stream containing **titanium tetrachloride** heated at 200°, the impregnated **catalyst** obtained was calcined at 600° for 7 h, contacted with steam consisted of 3 g/h water and 8 Nl/h nitrogen at 325° for 6 h, silylated at 185° for 2 h by contacting 18 g/h hexamethyldisilazane in 1.4 Nl/h a nitrogen flow to give a **catalyst**, which was contacted with a feed consisted of octene and ethylbenzene hydroperoxide, giving octylene oxide with selectivity 92.2.

L12 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:486420 CAPLUS  
DOCUMENT NUMBER: 141:43513  
TITLE: **Process for preparation of epoxidation catalysts**  
INVENTOR(S): Van der Linden, Johannes Petrus; Schouten, Eduardus Petrus Simon  
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B.V., Neth.  
SOURCE: PCT Int. Appl., 17 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent

10/720,905

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050233	A1	20040617	WO 2003-EP50875	20031124
WO 2004050233	C1	20040805		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004116723	A1	20040617	US 2003-720905	20031124
US 2004158085	A1	20040812	US 2003-720921	20031124
PRIORITY APPLN. INFO.:			EP 2002-258296	A 20021202
			EP 2002-258294	A 20021202

AB The present invention relates to (i) a **process** for the **preparation** of an epoxidn. **catalyst**, which **process** comprises impregnating a silicon containing **carrier** with a gas stream consisting of **titanium halide**, and (ii) **process** for the **preparation** of alkylene oxide with the help of such **catalyst**. Thus, a **silica gel carrier** with surface area 300 m2/g and weight average particle size 1 mm dried at 250° for 2 h was contacted with a gas stream containing **titanium** tetrachloride heated at 200°, the impregnated **catalyst** obtained was calcined at 600° for 7 h, contacted with steam consisted of 3 g/h water and 8 Nl/h nitrogen at 325° for 6 h, silylated at 185° for 2 h by contacting 18 g/h hexamethyldisilazane in 1.4 Nl/h a nitrogen flow to give a **catalyst**, which was contacted with a feed consisted of propene and ethylbenzene hydroperoxide, giving propylene oxide with selectivity 90.9.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:279465 CAPLUS

DOCUMENT NUMBER: 134:297042

TITLE: Supported solid **catalyst** based on rare earth complexes for the polymerization of conjugated dienes, **process** for **preparing** the same and polymerization **process** using the **catalyst**

INVENTOR(S): Barbotin, Fanny; Boisson, Christophe; Spitz, Roger  
PATENT ASSIGNEE(S): Societe De Technologie Michelin, Fr.; Michelin Recherche Et Technique S.A.

SOURCE: Eur. Pat. Appl., 13 pp.  
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 1092733	A1	20010418	EP 2000-121835	20001006
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2799394	A1	20010413	FR 1999-12744	19991011
CA 2321363	AA	20010411	CA 2000-2321363	20001010
JP 2002030107	A2	20020131	JP 2000-348831	20001011
PRIORITY APPLN. INFO.:			FR 1999-12744	A 19991011

OTHER SOURCE(S): MARPAT 134:297042

AB Conjugated diene polymers with high viscosity and cis-1,4-configuration content are manufactured in the presence of M(Ar)(AlX<sub>4</sub>)<sub>3</sub> (M = rare earth metal, Ar = aryl, X = halide) supported on a inorg. oxide, with a cocatalyst selected from trialkylaluminum and dialkylaluminum hydride. Preferably, the **support** is pretreated with a Lewis acid such as MX<sub>n</sub> (M = B, Ti, Fe, Al, Zr, Sn, Hf, and Sb, X = halide, n = 3-5).

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:623765 CAPLUS

DOCUMENT NUMBER: 133:209650

TITLE: Heterogeneous epoxidation **catalysts** for olefins

INVENTOR(S): Han, Yuan-zhang; Morales, Edrick; Gastinger, Robert G.; Carroll, Kevin M.

PATENT ASSIGNEE(S): Arco Chemical Technology, L.P., USA

SOURCE: U.S., 8 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6114552	A	20000905	US 1999-407489	19990928
CA 2379567	AA	20010405	CA 2000-2379567	20000808
WO 2001023371	A1	20010405	WO 2000-US21594	20000808
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000014321	A	20020528	BR 2000-14321	20000808
EP 1218365	A1	20020703	EP 2000-953880	20000808
EP 1218365	B1	20041110		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003510315	T2	20030318	JP 2001-526524	20000808
AT 282029	E	20041115	AT 2000-953880	20000808
TW 500720	B	20020901	TW 2000-89115830	20000905
PRIORITY APPLN. INFO.:			US 1999-407489	A 19990928
			WO 2000-US21594	W 20000808

AB Highly active and selective epoxidn. **catalysts** are **prepd** by combining high surface area siliceous **support**, having



surface area greater than 1100 m<sup>2</sup>/g, with a **titanium** source. The **titanium** source is a non-oxygenated hydrocarbon solution of a **titanium halide** or a vapor stream of **titanium tetrachloride**. The impregnated **support** is then calcined at an elevated temperature (preferably, in a substantially oxygen-free atmospheric), and, optionally, reacted with water and/or silylated. The resulting materials are highly active heterogeneous epoxidn. **catalysts** for the reaction of olefins to with organic hydroperoxides.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:807878 CAPLUS

DOCUMENT NUMBER: 133:322293

TITLE: Amide chelated transition metal olefin polymerization **catalyst**

INVENTOR(S): Kong, Gap-Goung; Yoon, Sung-Cheol; Hwang, Gyo-Hyun

PATENT ASSIGNEE(S): Samsung General Chemicals Co., Ltd., S. Korea

SOURCE: Brit. UK Pat. Appl., 22 pp.

CODEN: BAXXDU

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2346373	A1	20000809	GB 2000-2510	20000203
GB 2346373	B2	20010509		
KR 2000055232	A	20000905	KR 1999-3747	19990204
JP 2000273115	A2	20001003	JP 2000-32652	20000203
JP 3300696	B2	20020708		
US 6500906	B1	20021231	US 2000-497639	20000203
PRIORITY APPLN. INFO.:			KR 1999-3747	A 19990204

OTHER SOURCE(S): MARPAT 133:322293

AB Title **catalyst** is obtained by reacting (1) Mg-Al-amide complex compound which is a reaction product of Mg[AlR'(OR)<sub>3</sub>]<sub>2</sub> and an amide ligand with (2) a transition metal halide compound MX<sub>4</sub>, where R, R' = independently alkyl or aryl, M = Ti or Zr, and X = halogen. The olefin polymerization is performed using a catalytic system comprising the chelated transition metal **catalysts** component, MgCl<sub>2</sub> **support** component, and an organoaluminum cocatalyst component and produces a polymer having narrow mol. weight distribution, narrow compositional distribution, excellent morphol., and good processibility. Thus, Mg[AlR'(OR)<sub>3</sub>]<sub>2</sub>, where R= 2-ethylhexyl and R'= Bu or iso-Bu, **prepared** from of triethylaluminum 800, 2-ethylhexanol 2400, and dibutylmagnesium 400 mmol and 82.4 g dicyclohexylcarbodiimide were stirred for 3 h at room temperature to give Mg-Al complex containing carbodiimide ligand. The complex was added to 133.7 g TiCl<sub>4</sub>(THF)<sub>2</sub> and stirred for 6 h to give a chelated **titanium catalyst** solution. The chelated **titanium catalyst** (175 mmol) was stirred with 350 g spherical MgCl<sub>2</sub> (**preparation** given) at 50° for 3 h to give a **catalyst** with **titanium** content 1.2%. Ethylene was polymerized in the presence of 3 mmol trioctylaluminum and the resulting **titanium catalyst** (0.1 mmol Ti) at 70° for 1 h showing **catalyst** activity 2200 g-PE/mmol-Ti-h, melt index (2.16 kg/10 min at 230°) 0.7, melt flow ratio (21.6 kg/2.16 kg, 10 min at 230°) 25.3, and bulk d. 0.42 g/cm<sup>3</sup>.

L12 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:312461 CAPLUS

DOCUMENT NUMBER: 132:294133

TITLE: Ethylene dimerization **catalyst** and **catalyst** system comprising dimerization **catalyst** and ethylene polymerization **catalyst**

INVENTOR(S): Liu, Ainan; Yu, Hui; Sun, Xiaolin; Guan, Peitian; Yu, Jinfeng; Liu, Yongshui; Wang, Yueyun

PATENT ASSIGNEE(S): Sinopec, Peop. Rep. China; China, Ministry of Chemical Industry, Beijing Chemical Industry Institute

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.  
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1216722	A	19990519	CN 1997-119969	19971031
CN 1077577	B	20020109		

PRIORITY APPLN. INFO.: CN 1997-119969 19971031

OTHER SOURCE(S): MARPAT 132:294133

AB An ethylene dimerization **catalyst** system comprises component (A) obtained by contacting a chlorine-free inorg. porous **support** material, a **titanium** tetraalkoxide, and an electron donor selected from ethers, esters, and acid anhydrides, component (B) which is a liquid alkoxysilane, and co-**catalyst** trialkylaluminum. A combined **catalyst** system comprising the dimerization **catalyst** and a **titanium halide**-based ethylene polymerization **catalyst** provides ethylene-1-butene copolymer with various d. while using ethylene as the only starting material.

L12 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:1081250 CAPLUS

DOCUMENT NUMBER: 142:280553

TITLE: **Preparation** of aluminum magnesium **titanium halide** Ziegler-Natta **catalyst** for olefin polymerization

INVENTOR(S): Russell, Charles; Kelly, Mark; Ker, Victoria; Jeremic, Dusan

PATENT ASSIGNEE(S): Nova Chemicals Corp., Can.

SOURCE: Can. Pat. Appl., 24 pp.

CODEN: CPXXEB

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CA 2267946	AA	19991112	CA 1999-2267946	19990406
			US 1998-76560	A 19980512

PRIORITY APPLN. INFO.: US 1998-76560 A 19980512

AB A novel **process** for **preparing** a **catalyst**, preferably free of electron donor, useful in gas phase polymerization of alpha-olefins having a broad polydispersity, conducted in a hydrocarbon solvent at a temperature from 0 °C to 100 °C, comprises the steps:

(a) contacting a dehydrated **silica support** comprising from 0.1 to 3 weight% of an aluminum compound  $Al_1(R_1)_aX_b$ , wherein each  $R_1$  is independently selected from the group consisting of C1-10 alkyl radicals, X is selected from the group consisting of Cl and Br, a and b are 0 or an integer from 1 to 3 provided the sum of  $a+b=3$ ; (b) adding a mixture of an aluminum compound and a magnesium compound wherein the molar ratio of Mg:Al<sub>2</sub> in said mixture is from 0.5:1 to 25:1 to provide from 0.2 to 8.0 weight% of Mg based on the weight of the **silica** in the resulting product; (c) contacting the resulting product with CCl<sub>4</sub> or a secondary or tertiary alkyl halide  $R_4Cl$ , wherein  $R_4$  is selected from the group consisting of C3-6 alkyl radicals to provide a molar ratio of Cl:Mg from 1:1 to 8:1 in the resulting product; (d) finally reacting with a **titanium** compound,  $Ti(R_5)_y(Cl)_z$  wherein each  $R_5$  is selected from the group consisting of C1-10 alkyl radicals and C6-8 aryl radicals which are unsubstituted or substituted by a C1-4 alkyl radical, y and z are 0 or an integer from 1 to 4 provided that the sum of  $y+z=4$  to provide from 0.1 to 1.5 weight% of Ti based on the **silica**. Aluminum compound is  $Al_2(R_2)_nX_m$ , wherein each  $R_2$  is independently selected from the group consisting of C1-10 alkyl radicals, X is selected from the group consisting of Cl and Br, m and n are 0 or an integer from 1 to 3 provided the sum of  $n+m=3$ ; while the magnesium compound is  $Mg(R_3)_2$  wherein each  $R_3$  is independently selected from the group consisting of C1-10 alkyl radicals. Thus, triethylaluminum, MAGALA (a dibutylmagnesium-triethylaluminum **catalyst** complex), tert-Bu chloride and **titanium** chloride are used as a **catalyst** for synthesizing ethylene-hexene copolymer at 88°, yielding the polymer with a d. of 0.9191 g/cc, and a bulk d. of 25.6 lb/ft<sup>3</sup>.

L12 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:1081234 CAPLUS

DOCUMENT NUMBER: 142:280552

TITLE: **Preparation of aluminum, magnesium and titanium halide Ziegler-Natta catalyst for olefin polymerization**

INVENTOR(S): Kelly, Mark; Ker, Victoria; Jeremic, Dusan; Russell, Charles

PATENT ASSIGNEE(S): Nova Chemicals Corp., Can.

SOURCE: Can. Pat. Appl., 24 pp.

CODEN: CPXXEB

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2267939	AA	19991112	CA 1999-2267939	19990406
PRIORITY APPLN. INFO.:			US 1998-76280	A 19980512

AB A novel **process** for **preparing a catalyst**, preferably free of electron donor, useful in gas phase polymerization of alpha-olefins having a broad polydispersity, conducted in a hydrocarbon solvent at a temperature from 0° to 100°, comprises the steps: (a) contacting a dehydrated **silica support** comprising from 0.1 to 3 wt% of an aluminum compound  $Al_1(R_1)_aX_b$ , wherein each  $R_1$  is independently selected from the group consisting of C1-10 alkyl radicals, X is selected from the group consisting of Cl and Br, a and b are 0 or an integer from 1 to 3 provided the sum of  $a+b=3$ ; (b) adding to the **support** in a quantity of 2 to 30 wt% , preferably from 5 to 20 wt% based on the weight of **silica**, CCl<sub>4</sub> or a secondary or tertiary

alkyl halide, R4Cl wherein R4 is selected from the group consisting of C3-6 alkyl radicals; (c) contacting the resulting product with, in any order or in combination an aluminum and a magnesium compound wherein the molar ratio of Mg:Al<sub>2</sub> in said mixture is from 0.5:1 to 25:1 to provide from 0.25 to 8.0 wt% of Mg based on the weight of the **silica**, a molar ratio of Cl:Mg from 1:1 to 8:1 in the resulting product; (d) finally reacting with a **titanium** compound, Ti(R5)<sub>y</sub>(Cl)<sub>z</sub> wherein each R5 is selected from the group consisting of C1-10 alkyl, alkoxide and Ph radicals which are unsubstituted or substituted by a C1-4 alkyl radical, y and z are 0 or an integer from 1 to 4 provided that the sum of y+z=4 to provide from 0.1 to 1.5 wt% of Ti based on the **silica**. The aluminum compound is Al<sub>2</sub>(R2)<sub>n</sub>X<sub>m</sub>, wherein each R2 is independently selected from the group consisting of C1-10 alkyl radicals, X is selected from the group consisting of Cl and Br, m and n are 0 or an integer from 1 to 3 provided the sum of n+m=3; while the magnesium compound is Mg(R3)<sub>2</sub> wherein each R3 is independently selected from the group consisting of C1-10 alkyl radicals. Thus, triethylaluminum, MAGALA (a dibutylmagnesium-triethylaluminum **catalyst** complex), tert-Bu chloride and **titanium** chloride on **silica support** are used as a **catalyst** for **synthesizing** ethylene-hexene copolymer at 88°, yielding a LLDPE with a bulk d. of 20.3 lb/ft<sup>3</sup>.

L12 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:745045 CAPLUS

DOCUMENT NUMBER: 130:14316

TITLE: Epoxidation of olefins using an improved heterogeneous **catalyst** composition

INVENTOR(S): Han, Yuan-zhang; Carroll, Kevin M.; Morales, Edrick; Gastinger, Robert G.

PATENT ASSIGNEE(S): Arco Chemical Technology, L.P., USA; Arco Chemie Technologie Nederland B.V.

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9850374	A2	19981112	WO 1998-EP2681	19980504
WO 9850374	A3	19990211		
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2287079	AA	19981112	CA 1998-2287079	19980504
AU 9881035	A1	19981127	AU 1998-81035	19980504
EP 984949	A2	20000315	EP 1998-930675	19980504
EP 984949	B1	20040303		
R:	BE, DE, ES, FR, GB, IT, NL, SE			
BR 9809020	A	20000801	BR 1998-9020	19980504
RU 2181121	C2	20020410	RU 1999-125770	19980504
JP 2002514218	T2	20020514	JP 1998-547741	19980504
MX 9910143	A	20000331	MX 1999-10143	19991104

10/720,905

PRIORITY APPLN. INFO.:

US 1997-851105	A	19970505
US 1997-900794	A	19970725
US 1998-60375	A	19980415
WO 1998-EP2681	W	19980504

AB Highly active and selective epoxidn. **catalysts** are **prepd** . by combining **silica** or the like with a nonoxygenated hydrocarbon solution of **titanium halide**, removing solvent, calcining at an elevated temperature (preferably, in a substantially oxygen-free atmospheric), and, optionally, reacting with water and silylating. The resulting materials are useful heterogeneous **catalysts** for transforming olefins to epoxides using organic hydroperoxides.

L12 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:760043 CAPLUS

DOCUMENT NUMBER: 130:14342

TITLE: Loop/slurry polymerization **process** for producing ultra high molecular weight ethylene homopolymers

INVENTOR(S): Martin, Joel Leonard; Secora, Steven Joseph; Benham, Elizabeth Ann; Mcdaniel, Max Paul; Hsieh, Eric Tsu-yin; Johnson, Timothy Walter

PATENT ASSIGNEE(S): Phillips Petroleum Company, USA

SOURCE: Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 878490	A2	19981118	EP 1998-108925	19980515
EP 878490	A3	19990217		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6034186	A	20000307	US 1997-857788	19970516
AU 9861985	A1	19981119	AU 1998-61985	19980420
AU 700622	B2	19990107		
JP 10324716	A2	19981208	JP 1998-127695	19980511
CN 1199740	A	19981125	CN 1998-108478	19980514
CA 2238241	AA	19981116	CA 1998-2238241	19980515
CA 2238241	C	20030218		
NO 9802241	A	19981117	NO 1998-2241	19980515
US 6037433	A	20000314	US 1998-191800	19981113

PRIORITY APPLN. INFO.:

US 1997-857788 A 19970516

OTHER SOURCE(S): MARPAT 130:14342

AB The **process** is carried out at 66-82° in the presence of a hydrocarbon diluent and in the absence of hydrogen with (i) a **catalyst** system comprising a magnesium compound and a **titanium halide** both supported on an inorg. oxide and (ii) an aluminum alkyl cocatalyst. Thus, ethylene was polymerized using Sylopol 5910 **catalyst** having average particle size 10 µm and Mg/Ti mol ratio of 9.69, triethylaluminum cocatalyst, and isobutane diluent without addition of hydrogen in a 73.3° liquid full loop reactor to give a ethylene homopolymer, which was blended with 0.4% calcium stearate and compression-molded giving d. 0.931 g/cc, bulk d. 24 lbs/ft<sup>3</sup>, tensile strength (yield) 22.4 MPa, tensile strength (break) 43.7 MPa, elongation 232%, Izod impact 59 kJ/m<sup>2</sup>, tensile impact 2545 kJ/m<sup>2</sup>, flexural modulus 727 MPa, sand wheel abrasion 90 g, and Shore D hardness 70.

L12 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:124833 CAPLUS  
 DOCUMENT NUMBER: 126:215592  
 TITLE: Compounds and compositions for coating glass with silicon oxide  
 INVENTOR(S): Neuman, George A.; Athey, Patricia R.; Stewart-Davis, Royann L.  
 PATENT ASSIGNEE(S): PPG Industries, Inc., USA  
 SOURCE: U.S., 18 pp., Cont.-in-part of U.S. 5,464,657.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5599387	A	19970204	US 1995-472589	19950607
US 5356718	A	19941018	US 1993-17930	19930216
JP 2000143294	A2	20000523	JP 1999-326457	19940215
JP 3476724	B2	20031210		
US 5464657	A	19951107	US 1994-264816	19940623
US 5776236	A	19980707	US 1996-678252	19960711
PRIORITY APPLN. INFO.:			US 1993-17930	A3 19930216
			US 1994-264816	A2 19940623
			JP 1994-18633	A3 19940215
			US 1995-472589	A3 19950607

AB In a coating composition vapor for the pyrolytic deposition of SiO<sub>2</sub>, comprising a **carrier** gas, a source of O, and a Si compound, the improvement comprises  $\geq 1$  Si compds. having general formula  $R_1OSiR_2(R_3)(R_4)$  (R1-3 to be defined; R2 = functional group or atom, excluding H, capable of withdrawing electron d. away from the Si atom to weaken the bond between the R2 functional group and the Si atom for ease of separating the R2 functional group from the Si atom). More specifically, R1 is selected from (substituted) C1-10-alkyl radicals, (substituted) C2-10-alkenyl radicals, (substituted) C2-10-alkynyl radicals, (substituted) C6-11-aryl, (substituted) C6-11-aralkyl radicals, R2 is selected from H, halogen, (substituted) C2-10-alkenyl radicals, halogenated C1-10-alkyl and perhalogenated C1-10-alkyl radicals, (substituted) C2-10-alkynyl radicals, R3 and R4 are to be defined, and the compns. may include an accelerant selected from tetravalent compds. of S and Se, and from O<sub>3</sub>, Lewis acids, and Lewis bases. The compds. are suitable for use as accelerants, increasing the deposition rate of the Si oxide. Addnl. the compns. may include a metal-containing coating precursor, e.g., an organotin compound, to deposit another oxide along with Si oxide. The compns. are especially suitable for coating float glass in its manufacturing stage.

L12 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:452248 CAPLUS  
 DOCUMENT NUMBER: 122:195027  
 TITLE: Reticulated ceramic particles, and their manufacture and use  
 INVENTOR(S): Whitman, David William  
 PATENT ASSIGNEE(S): Rohm and Haas Co., USA  
 SOURCE: Eur. Pat. Appl., 14 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 639544	A2	19950222	EP 1994-305507	19940726
EP 639544	A3	19970709		
EP 639544	B1	20000503		
R: DE, FR, GB, IT				
US 5399535	A	19950321	US 1993-107861	19930817
ZA 9405821	A	19950217	ZA 1994-5821	19940804
CA 2129769	AA	19950218	CA 1994-2129769	19940809
JP 07187846	A2	19950725	JP 1994-213227	19940816
PRIORITY APPLN. INFO.:			US 1993-107861	A 19930817

AB The particles have microporous volume 0-60, mesoporous volume 5-95, and macroporous volume 0-95 for a total of 100% of the porosity. The particles are manufactured by impregnating a porous matrix material with  $\geq 1$  liquid precursor ceramics, forming a gel from the precursors, forming ceramics from the gel, and removing at least part of the matrix material selected from porous SiO<sub>2</sub>, zeolites, and porous polymers, e.g., ion exchange resins and adsorbents. The reticulated ceramic particles are used as chromatog. medium, **catalysts**, and adsorbents. The reticulated ceramic particles provided comprise SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>, and Ru<sub>2</sub>O<sub>3</sub>.

L12 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:290071 CAPLUS  
DOCUMENT NUMBER: 122:56813  
TITLE: Cocatalyst for vanadium-**titanium** containing polymerization **catalyst**  
INVENTOR(S): Menon, Raghu; Masino, Albert P.; Reinking, Mark K.  
PATENT ASSIGNEE(S): Quantum Chemical Corp., USA  
SOURCE: U.S., 9 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5346872	A	19940913	US 1993-10737	19930129
PRIORITY APPLN. INFO.:			US 1993-10737	19930129

AB Halosilanes improve the activity of **silica**-supported V-Ti **catalysts** containing aluminum compound cocatalysts in the polymerization of ethylene and(or)  $\alpha$ -olefins and increase the melt index values of the polymers. Thus, polymerization of ethylene in the presence of hexamethyldisilazane-treated **silica**-supported 2-methylpentylloxymagnesium chloride-SiCl<sub>4</sub>-tri-iso-Bu vanadate-TiCl<sub>4</sub> solid **catalyst**, Et<sub>3</sub>Al cocatalyst, H, and SiCl<sub>4</sub> cocatalyst gave a polymer at 34% higher activity than when SiCl<sub>4</sub> was not used as the cocatalyst. The melt index of the polymer **prepared** in the presence of SiCl<sub>4</sub> cocatalyst was 12.7, compared with 8.9 when SiCl<sub>4</sub> was not used as a cocatalyst.

L12 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:77909 CAPLUS  
DOCUMENT NUMBER: 120:77909  
TITLE: **Catalyst** for the stereospecific polymerization of propylene and other olefins

10/720,905

INVENTOR(S): Milani, Federico; Luciani, Luciano; Labianco, Antonio  
PATENT ASSIGNEE(S): ECP Enichem Polimeri S.r.l., Italy  
SOURCE: Eur. Pat. Appl., 13 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 558137	A2	19930901	EP 1993-200482	19930219
EP 558137	A3	19940706		
EP 558137	B1	19970502		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 152459	E	19970515	AT 1993-200482	19930219
ES 2100440	T3	19970616	ES 1993-200482	19930219
US 5348925	A	19940920	US 1993-20990	19930222
HU 69295	A2	19950928	HU 1993-1280	19930430
HU 213866	B	19971128		
BR 9301799	A	19941129	BR 1993-1799	19930510
JP 06345814	A2	19941220	JP 1993-134673	19930604
PRIORITY APPLN. INFO.:			IT 1992-MI414	A 19920226

AB A solid **catalyst** component active in the title use is prepared by (a) blocking a nonactivated **silica support** with a Sn tetrahalide (e.g., SnCl<sub>4</sub>) to at least partly block OH groups on the surface, (b) impregnating the **support** with Mg dialkyl or Mg alkyl halide, (c) halogenating with halides of Sn, Sb, or Si, (d) titanating with excess Ti tetrahalide, and (e) contacting with Lewis base, and used with Al cocatalyst and electron donor to polymerize propylene. A SnCl<sub>4</sub>-blocked SiO<sub>2</sub>-supported component prepared by impregnating Mg Bu octyl, halogenating with SbCl<sub>4</sub>, titanating with TiCl<sub>4</sub>, and contacting with diisobutyl phthalate (DIBP) at Mg:Ti:DIBP ratio 1:34.5:0.12 was used with AlEt<sub>2</sub> and MeO<sub>2</sub>Ph<sub>2</sub>Si to manufacture isotactic polypropylene of melt flow index (5 kg; 230°) 5.44 g/10 min.

L12 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1986:89215 CAPLUS  
DOCUMENT NUMBER: 104:89215  
TITLE: Polymerization **catalysts**  
INVENTOR(S): Best, Steven A.  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA  
SOURCE: U.S., 8 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4558024	A	19851210	US 1984-638165	19840806
AU 8545779	A1	19860213	AU 1985-45779	19850805
JP 61087703	A2	19860506	JP 1985-172250	19850805
EP 173488	A1	19860305	EP 1985-305578	19850806
R: BE, DE, FR, GB, IT, NL, SE				
US 4634748	A	19870106	US 1985-777394	19850918
PRIORITY APPLN. INFO.:			US 1984-638165	A 19840806



AB Olefin polymerization **catalysts prepared** from porous particulate **supports**, Group IIa, IIb, or IIIa metal organic compds., transition metal compds., Group IIIa methyl haloalkyls, and, optionally, 0 compds., give polymers with narrow mol. weight distribution and high tear strength. Thus, a **catalyst prepared** from **silica**, EtAlCl<sub>2</sub>, BuEtMg, and TiCl<sub>4</sub>, used with iso-Bu<sub>3</sub>Al, gave 1-butene-ethylene copolymer with sp. activity 22.6 and melt index ratio 32.3.

L12 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1984:611864 CAPLUS  
DOCUMENT NUMBER: 101:211864  
TITLE: **Preparation of polymers**  
PATENT ASSIGNEE(S): Japan Synthetic Rubber Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59098110	A2	19840606	JP 1982-207661	19821129
PRIORITY APPLN. INFO.:			JP 1982-207661	19821129

AB Conjugated dienes are polymerized alone or with olefins in high yield using **catalysts prepared** by treating porous metal oxide **supports** having sp. surface area (S)  $\geq 10$  m<sup>2</sup>/g, particle diameter (D)  $\leq 100$   $\mu$ , and average pore diameter (.hivin.d)  $\geq 50$  Å with Ti<sup>3+</sup> or Ti<sup>4+</sup> halides, which react with HO groups on the metal oxide surface, and then (in the case of Ti<sup>4+</sup> halides) with reducing agents. Thus, vacuum-dried **silica** (S 300 m<sup>2</sup>/g, D 35  $\mu$ , .hivin.d 200 Å) was refluxed with a solution of TiCl<sub>4</sub> in heptane, washed and dried, then treated with Et<sub>2</sub>AlCl [96-10-6] in heptane, washed, and dried under N. The resulting **catalyst** was slurried in heptane containing Et<sub>2</sub>AlCl, and 1,3-butadiene was contacted with the slurry at 65° to obtain polybutadiene [9003-17-2] containing 50% cis-1,4-, 50% trans-1,4-, and .apprx.0% 1,2- units, at **catalyst** activity 0.62 kg/g Ti-h.

L12 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1984:531305 CAPLUS  
DOCUMENT NUMBER: 101:131305  
TITLE: Polyolefins  
PATENT ASSIGNEE(S): Toyo Soda Mfg. Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59096107	A2	19840602	JP 1982-204528	19821124
PRIORITY APPLN. INFO.:			JP 1982-204528	19821124

AB A solid product **prepared** by reacting a hydrocarbon halide, an electron donor, and MgRR<sub>1</sub> (R, R<sub>1</sub> = C<sub>1</sub>-20 hydrocarbon) in the presence of a **silica**, Al<sub>2</sub>O<sub>3</sub>, or **silica-Al<sub>2</sub>O<sub>3</sub> support** treated with an organoaluminum compound is treated with a phenol compound and a Ti

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halide to give a solid **catalyst** which is used with an organoaluminum compound to **prepare** olefin (co)polymers. The **method** gives polyolefins having a high stereoregularity and ideal granule size at a high catalytic activity. Thus, **silica** gel treated with Et<sub>3</sub>Al was agitated with MgBuEt, Et benzoate, and CCl<sub>4</sub> to give a solid product which was then agitated with p-cresol and TiCl<sub>4</sub> to give a solid **catalyst**. Liquid propylene was polymerized in the presence of the above **catalyst**, Et<sub>3</sub>Al, and Et benzoate to give polypropylene having a high isotactic index and ideal granule size.

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

90.22

90.43

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-13.87

-13.87

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